

Silvestrol aglycone

Catalog No: tcsc0542



Available Sizes

Size: 1mg



Specifications

CAS No:

960365-65-5

Formula:

$C_{27}H_{26}O_8$

Pathway:

Apoptosis

Target:

Apoptosis

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 106 mg/mL (221.53 mM)

Observed Molecular Weight:

478.49

Product Description

Silvestrol aglycone, a aglycone of potential anticancer rocaglate derivative from *Aglaia foveolata*, induces apoptosis in LNCaP cells through the mitochondrial/apoptosome pathway without activation of executioner caspase-3 or -7; 5' myc-UTR-LUC inhibitor (IC₅₀= 0.8 nM).

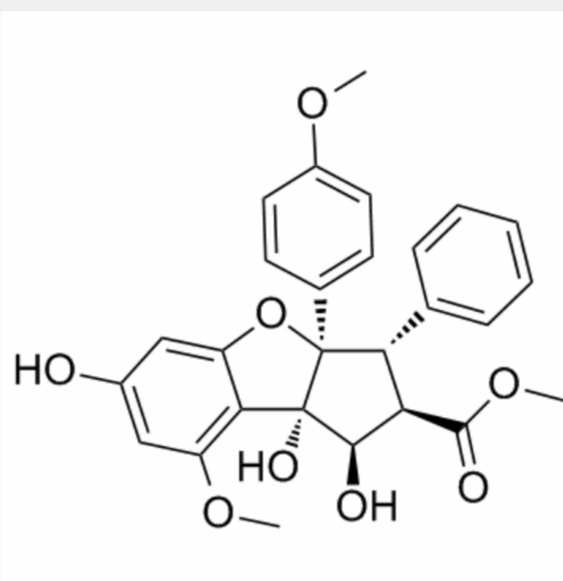
IC₅₀ value:

Target: Apoptosis inducer

in vitro: Silvestrol induced an apoptotic response, disrupted the mitochondrial trans-membrane potential and caused cytochrome c

release into the cytoplasm. Immunoblot analysis indicated that, at the protein level, silvestrol produced an increase of Bcl-xl phosphorylation with a concomitant increase of bak. Furthermore, caspase-2, -9 and -10 appeared to be involved in silvestrol-mediated apoptosis. In contrast, the involvement of caspase-3 and -7 was not detected, either by immunoblot or caspase-3/-7-like activity analysis, indicating that these pathways do not play a crucial role in silvestrol-induced apoptosis [1]. The ability of silvestrol and analogues to selectively inhibit the translation of proteins with high requirement on the translation-initiation machinery (i.e., complex 5'-untranslated region UTR) relative to simple 5'UTR was determined by a cellular reporter assay. Simplified analogues of silvestrol such as compounds 74 and 76 were shown to have similar cytotoxic potency and better ADME characteristics relative to those of silvestrol [2].

in vivo:



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